This Listing of Claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A parallel and selective growth method of carbon nanotube on the substrates for electronic-spintronic device applications comprising ~~the steps of~~:

forming an insulating film on a ~~board~~ substrate;

forming ~~fine~~ patterns of catalyst metal layer including a contact electrode pad on the insulating film;

forming a growth barrier layer for vertical growth on upper part of the catalyst metal layer; and

directly growing a carbon nanotube which joins catalyst patterns,

wherein the contact electrode pad is formed before growing the carbon nanotube.

2. (Original) The method according to claim 1, wherein the insulating film is formed by using an oxidation method and CVD (Chemical Vapor Deposition) method in an electric furnace of 1100°C.

3. (Original) The method according to claim 1, wherein the insulating film is formed to have thickness of 50~500 nm.

4. (Previously Presented) The method according to claim 1, wherein the catalyst metal uses at least one among Ni, Ni/Ti (or Nb), Co, Co/Ti (or Nb), Fe, Fe/Ti (or Nb), (Ni/Co)n, (Co/Ni)n, and (Co/Ni/Co)n, (Ni/Co/Ni)n wherein n is a positive integer, and Co/MgO.

5. (Previously Presented) The method according to claim 1, wherein the catalyst metal has a purity higher than 99.9%, and is formed to have 80~400 nm thickness in the temperature range of normal temperature~150°C.

6. (Original) The method according to claim 1, wherein the CNT is grown in C_2H_2 (or C_2H_4) / $N_2(He, Ar), H_2, NH_3$ atmosphere with 10~5000 torr of gas pressure for 10~3000 seconds.

7. (Previously Presented) The method according to claim 1, wherein the CNT is grown using a thermochemistry gas phase deposition process (or a plasma process), and the temperature of a processing chamber wherein the CNT is grown is to be 500~900°C (error range ±10°C at both ends).

8. (Original) The method according to claim 1, wherein the CNT growth uses an amorphous carbon thin film and a graphite as a self-catalyst, and the growth speed is 100 nm/minute.

9. (Original) The method according to claim 1, wherein a clearance between the catalyst metal patterns is within 50 nm~10 μm.

10. (Original) The method according to claim 1, wherein a diameter of the CNT is within 1~50 nm.

11. (Previously Presented) The method according to claim 1, wherein the contact electrode uses normal metals, superconductive metals, or magnetic metals.

12. (Currently Amended) The method according to claim 1, wherein one among an oxide film, a ~~nitrogen~~ nitride film, a ~~laminated~~ layered structure of the oxide film and the ~~nitrogen~~ nitride film, ~~a mixture structure of the oxide film and the nitrogen film,~~ or SiO_2, $Si_3N_4, SiO_2 - Si_3N_4, Al_2O_3$ is used as the growth barrier layer for vertical growth

13. (Previously Presented) The method according to claim 1, wherein as the growth barrier layer for vertical growth, Ti, Pt, W, Nb, V, Au or a compound metal of combinations thereof is used.

14. (Original) The method according to claim 12, wherein thickness of the growth barrier layer is varied within 20~30nm in order to embody a top gate device.

15. (Previously Presented) The method according to claim 13, wherein the growth barrier layer comprises an electrode for eletronic- and spintronic devices.

16. (New) The method of claim 1, wherein the catalyst metal layer including the contact electrode pad and the growth barrier layer are formed in one step.